

Contents

Volume 129 (1984)

Obituary

Dr. Alma Howard: 1913-1984 (MTR 03930)

by Shirley Hornsey (London) 1- 2

Review

Inducibility of error-prone DNA repair in yeast? (MTR 03904)

by Wolfram Siede and Friederike Eckardt (Neuherberg) 3- 11

Research Papers

Mutagenicity of benzidine and 4-aminobiphenyl after metabolic activation with isolated hepatocytes and liver 9000 × g supernatant from rat, hamster and guinea pig (MTR 03909)

by J.M. Neis, P.J.L. van Gemert, H.M.J. Roelofs, R.P. Bos and P.Th. Henderson (Nijmegen) 13- 18

Superoxide dismutase acts as an enhancing factor for quercetin mutagenesis in rat-liver cytosol by preventing its decomposition (MTR 03911)

by Masako Ochiai, Minako Nagao, Keiji Wakabayashi and Takashi Sugimura (Tokyo) 19- 24

A desmutagenic factor isolated from burdock (*Arctium lappa* Linne) (MTR 03912)

by Kazuyoshi Morita, Tsuneo Kada and Mitsuo Namiki (Odawara, Misima and Nagoya) 25- 31

Desmutagenic substance in water extract of grass-wrack pondweed (*Potamogeton oxyphyllus Miquel*) (MTR 03917)

by Takahiko Sato, Yoshifumi Suzuki, Youki Ose and Tetsuya Ishikawa (Gifu) 33- 38

Dissociation of malondialdehyde mutagenicity in *Salmonella typhimurium* from its ability to induce interstrand DNA cross-links (MTR 03921)

by Ashis K. Basu, Lawrence J. Marnett and Louis J. Romano (Detroit) 39- 46

Mutagenic activities of cyclophosphamide (NSC-26271) and its main metabolites in *Salmonella typhimurium*, human peripheral lymphocytes and Chinese hamster ovary cells (MTR 03922)

by K. Winckler, G. Obe, S. Madle and H. Nau (Berlin) 47- 55

Mutagenicity of ascorbic acid for the plant *Arabidopsis* (MTR 03918)

by Gregoria N. Acedo, G.P. Rédei and S.S. Sandhu (Columbia and Research Triangle Park) 57- 62

Antagonizing effect of 3-aminoharman on induction of sister-chromatid exchanges by mutagens (MTR 03905)

by Hiroko Tohda, Ryoko Sugawara, Jun Tazawa, Masao Tada and Atsushi Oikawa (Sendai) 63- 69

Sister-chromatid exchanges in human lymphocytes after a non-S-phase incubation period to allow excision DNA repair-in vitro exposure to *N*-acetoxy-2-acetylaminofluorene and ethylene oxide (MTR 03914)

by Karin Hedner, Felix Mitelman and Ronald W. Pero (Lund) 71- 76

Sister-chromatid exchange (SCE) report on control subjects in a study of occupationally exposed workers (MTR 03919)

by Keith A. Soper, Paul D. Stolley, Sheila M. Galloway, Joan G. Smith, Warren W. Nichols and Sandra R. Wolman (Philadelphia, Kensington, Camden and New York) 77- 88

Sister-chromatid exchanges in association with occupational exposure to ethylene oxide (MTR 03920)

by Paul D. Stolley, Keith A. Soper, Sheila M. Galloway, Warren W. Nichols, Sandra A. Norman and Sandra R. Wolman (Philadelphia, Kensington, Camden and New York) 89-102

Mutagenic action of monochromatic UV radiation in the solar range on human cells (MTR 03915)

by Rex M. Tyrrell (Epalinges/Lausanne) 103-110

Characterization of an unscheduled DNA synthesis assay with Syrian hamster embryo cells (MTR 03916)

by Takeki Tsutsui, Nobuko Suzuki, Heiji Maizumi and J. Carl Barrett (Tokyo and Research Triangle Park) 111-117

A mutagenesis-enhancing activity of 12-*O*-tetradecanoylphorbol 13-acetate detected in Chinese hamster ovary cells (MTR 03923)

by Robert S. Dewdney and Colin J. Soper (Bath) 119-127

Comparison of DNA-repair synthesis, chromosome aberrations and induction of micronuclei in cultured human fibroblasts, Chinese hamster ovary and central mudminnow (*Umbra limi*) cells exposed to chemical mutagens (MTR 03925)

by Douglas G. Walton, Alfred B. Acton and Hans F. Stich (Vancouver) 129-136

Obituary

Dr. Barry Leigh: 1938-1984 (MTR 03967)

by F.H. Sobels (Leiden) 137-139

Research Papers

Apurinic sites cause mutations in simian virus 40 (MTR 03932)

by Alain Gentil, Angèle Margot and Alain Sarasin (Villejuif) 141-147

Bacteriophage T4 particles are refractory to bisulfite mutagenesis (MTR 03940)

by Lynn S. Ripley and John W. Drake (Research Triangle Park) 149-152

Azaserine: further evidence for DNA damage in *Escherichia coli* (MTR 03951)

by D.M. Williams-Hill, J. Olesen, C. Zucker and H.E. Kubitschek (Argonne) 153-164

Gene dosage and complementation analysis of ataxia telangiectasia lymphoblastoid cell lines assayed by induced chromosome aberrations (MTR 03927)

by Philip Chen, F. Paula Imray and Chev Kidson (Brisbane) 165-172

Chromosomal consequences of irradiation of human lymphocytes during S-phase, with special reference to chromatid exchanges (MTR 03928)

by J.-L. Antoine and B. Dutrillaux (Paris) 173-179

Isolation of Chinese hamster cells hyposensitive to ethyl methanesulfonate and their characterization in induction and antagonization of sister-chromatid exchanges (MTR 03929)

by Akira Sono and Kengo Sakaguchi (Shizuoka and Guelph) 181-194

The action of anticlastogens in human lymphocyte cultures and its modification by rat liver S9 mix

I. Studies with AET and sodium fluoride (MTR 03931)

by E. Gebhart, H. Wagner and H. Behnken (Erlangen) 195-206

Cultured human lymphocytes proliferate faster in medium lacking fetal calf serum and antibiotics (MTR 03939)

by Sheldon Wolff, Veena Afzal and Patricia Brown Lindquist (San Francisco) 207-213

Genetic injury in hybrid male mice exposed to low doses of ⁶⁰Co γ-rays or fission neutrons

I. Response to single doses (MTR 03926)

by D. Grahm, B.A. Carnes, B.H. Farrington and C.H. Lee (Argonne) 215-229

X-Ray-induced translocations in marmoset (*Callithrix jacchus*) stem-cell spermatogonia (MTR 03935)

by Paul P.W. van Buul (Leiden) 231-234

Pseudo dominant-lethal response in female mice treated with plant oils (MTR 03954)

by Walderico M. Generoso, Katherine T. Cain, Jeanine A. Hoskins, Willie J. Washington and Joe C. Rutledge (Oak Ridge, Wilberforce and Dallas) 235-241

Negative evidence for an adaptive response to lethal and mutagenic effects of alkylating agents in V79 Chinese hamster cells (MTR 03924)

by G. Frosina, S. Bonatti and A. Abbondandolo (Ferrara, Pisa and Genova) 243-250

Action spectra for killing and mutation of Chinese hamster cells exposed to mid- and near-ultraviolet monochromatic light (MTR 03936)

by R.L. Wells and A. Han (Argonne) 251-258

UV-induced mutagenesis at the hypoxanthine-guanine phosphoribosyl transferase locus in two L5178Y mouse lymphoma cell strains with different UV sensitivities (MTR 03928)

by Elizabeth D. Jacobson, Kenneth Krell, Zofia Olempska-Beer and Janusz Z. Beer (Rockville) 259-267

The nature of mutants induced by ionising radiation in cultured hamster cells

I. Isolation and initial characterisation of spontaneous, ionising radiation-induced, and ethyl methanesulphonate-induced mutants resistant to 6-thioguanine (MTR 03944)

by Robert Brown and John Thacker (Harwell) 269-281

Induction of 6-thioguanine-resistant mutants and SCEs by 3 chemical mutagens (EMS, ENU and MMC) in cultured human blood lymphocytes (MTR 03946)

by Vijayalaxmi and H.J. Evans (Edinburgh) 283-289

NADPH-generating system: influence on microsomal mono-oxygenase stability during incubation for the liver-microsomal assay with rat and mouse S9 fractions (MTR 03947)

by Giorgio Cantelli Forti, Moreno Paolini, Patrazia Hrelia, Claudio Corsi, Gian Luigi Biagi and Giorgi Bronzetti (Bologna and Pisa) 291-297

A dual assay for the specific screening of 3-methylcholanthrene- and phenobarbital-like chemical inducers of cytochrome P-450 monooxygenases (MTR 03950)

by P. Lesca, A. Fournier, P. Lecointe and T. Cresteil (Toulouse and Paris) 299-310

Genetic analysis of clear-plaque mutations induced in bacteriophage *lambda* by 9-aminoacridine (MTR 03948)

by Friedrich W. Pons (Frankfurt-am-Main) 311-317

Effect of L-ethionine on the expression of the SOS system in *Escherichia coli* (MTR 03945)

by Jorge Barbé, Manuel Castellvi, J. Albert Vericat and Ricardo Guerrero (Barcelona) 319-325

The effect of newly induced mutations on the fitness of genotypes and populations of yeast (<i>Saccharomyces cerevisiae</i>) (MTR 03953)	
by Edeltraud Orthen, Peter Lange and Klaus Wöhrmann (Tübingen)	327-335
The synaptonemal complexes of <i>Caenorhabditis elegans</i> : Pachytene karyotype analysis of the <i>rad-4</i> radiation-sensitive mutant (MTR 03952)	
by Paul Goldstein (El Paso)	337-343
A quantitative analysis of the cytotoxic action of chemical mutagens (MTR 03949)	
by H.P. Leenhouts and K.H. Chadwick (Wageningen)	345-357
Induction of chromosome damage by <i>Neurospora</i> endonuclease in repair-inhibited quiescent normal human fibroblasts (MTR 03961)	
by Pramila Sen and W.N. Hittelman (Houston)	359-364
The relationship between the levels of DNA-hydrocarbon adducts and the formation of sister-chromatid exchanges in Chinese hamster ovary cells treated with derivatives of polycyclic aromatic hydrocarbons (MTR 03963)	
by Kalyani Pal (London)	365-372
γ -Ray-induced reciprocal translocations in spermatogonia of the crab-eating monkey (<i>Macaca fascicularis</i>) (MTR 03955)	
by Yoichi Matsuda, Izuo Tobari, Junji Yamagiwa, Toyoko Utsugi, Masayuki Kitazume and Sayaka Nakai (Chiba) .	373-380
Specific-locus mutation rates in the mouse following inhalation of ethylene oxide, and application of the results to estimation of human genetic risk (MTR 03956)	
by L.B. Russell, R.B. Cumming and P.R. Hunsicker (Oak Ridge)	381-388
Isolation and characterization of mutator mutants from cultured mouse FM3A cells (MTR 03943)	
by Masao Hyodo, Narushi Ito, Hideki Koyama and Kenshi Suzuki (Tokyo)	389-395
An adenosine kinase mutation in baby hamster kidney cells causing increased sensitivity to adenosine (MTR 03958)	
by P. Juranka, F. Meffe, S. Guttman, S.M. Archer and V.L. Chan (Toronto)	397-402
<i>Contents, Vol. 129 (1984)</i>	403-405